

## CLAIMS:

1. A video projection system comprising at least start itemization here a light source coupled to a reflector for concentrating the light into a beam,
  - a motor-driven color wheel (1) which has a plurality of light-transmitting segments (2), at least some of said segments (2) being dichroic filters for the colors red, green, and blue, and whose speed of rotation can be modified by a control,
  - a lens system which images the focused light beam onto a display,
  - a display system comprising at least a display and a display control, and
  - a projection lens end itemization here, wherein said video projection system has not only a video projection mode but also a lighting mode,
- 10 characterized in that in that the color wheel (1) is stationary in the lighting mode, and at least one segment (2) of the color wheel (1) can be given a defined position in the beam path.
2. A video projection system as claimed in claim 1, characterized in that video sequences can be imaged on the display in the lighting mode.
- 15 3. A video projection system as claimed in claim 1, characterized in that the color wheel (1) can be positioned in the lighting mode such that the focused light beam is incident on one or on two dichroic filters of the color wheel (1).
- 20 4. A video projection system as claimed in claim 1, characterized in that the color wheel (1) has at least one transparent segment (2).
5. A video projection system as claimed in claim 1, characterized in that the color wheel (1) has eight segments (2), of which six segments (2) are dichroic filters for red (R), green (G), and blue (B), and two segments (12) are transparent (W), which eight segments (2) are arranged directly next to one another along the circumference of the color wheel (1) in the sequence: red (R), green (G), blue (B), transparent (W), green (G), red (R), blue (B), and transparent (W).
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6. A video projection system as claimed in claim 1, characterized in that the color wheel (1) can be given a defined position by means of a detection arrangement, an electronically commutated motor, and/or sensors for color measurement.
- 5 7. A video projection system as claimed in claim 1, characterized in that an integrating rod is arranged in the beam between the color wheel (1) and the lens system.
8. A video projection system as claimed in claim 1, characterized in that a lithographically structured dichroic filter is arranged on the color wheel (1).
- 10 9. A video projection system as claimed in claim 1, characterized in that at least a second color wheel (1) is positioned in the beam.
10. A video projection system as claimed in claim 1, characterized in that dichroic  
15 filters for red, green, and blue are arranged on one color wheel (1) or on several color wheels (1) such that overall each of these three colors is arranged directly next to one of the two other colors at least once, and in addition each of these three colors is arranged next to a transparent segment (2) at least once.
- 20 11. A video projection system as claimed in any one of the claims 1 to 10, characterized in that the projection system can be used as a spotlight.